## **CLAIMS**

- 1. A contrast medium for thrombus which comprises, as an active substance, a substance obtained by labeling a compound capable of binding to glycoprotein IIb/IIIa.
- 2. A contrast medium for thrombus which comprises, as an active substance, a substance obtained by labeling a compound capable of binding to glycoprotein IIb/IIIa selected from compounds represented by the general formula (I):

[Chemical Formula 1]

$$R^{1}(X^{1})_{\overline{m}} A^{1} C (Y^{1})_{\overline{n}} (A^{2})_{\overline{p}} Z^{1} A^{3} R^{2}$$
 (1)

wherein

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R¹ represents an N-containing cycloalkyl radical which may have one or more substituents;

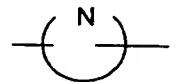
15 R<sup>2</sup> represents a carboxy or protected carboxy radical;

A¹ represents a lower alkylene, lower alkanyl-ylidene or lower alkenylene radical, each of which may have one or more substituents; A² represents a lower alkylene radical;

A<sup>3</sup> represents a lower alkylene radical which may have one or more substituents;

a moiety represented by

[Chemical Formula 2]



is a N-containing heterocyclic radical represented by the formula:

## [Chemical Formula 3]



5 which may have one or more substituents;

X1 represents O, S or NH;

Y<sup>1</sup> represents NH; and

Z¹ represents

[Chemical Formula 4]

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wherein R³ represents a hydrogen atom or a lower alkyl radical; and

m, n and p are the same or different and represent an integer of 0 or 1, respectively;

and a physiologically acceptable salt thereof,
compounds represented by the general formula (II):

[Chemical Formula 5]

$$R^4 - (A^4)_r - C - N - C - NH - A^5 - R^5$$
 (II)

wherein

R<sup>4</sup> represents a piperidyl, tetrahydropyridyl, azetidinyl or tetrahydroisoquinolyl radical and these piperidyl, tetrahydropyridyl, azetidinyl and tetrahydroisoquinolyl radicals may have an amino protective group;

R<sup>5</sup> represents a carboxy or protected carboxy radical;
A<sup>4</sup> represents a lower alkylene, lower alkanyl-ylidene, lower alkenylene,

A<sup>5</sup> represents a lower alkylene radical which may have one or more substituents or an arylene radical;

a moiety represented by

[Chemical Formula 6]

cyclo(lower)alkylene or arylene radical;

represents a piperidinediyl or tetrahydroisoquinolinediyl radical; and r represents an integer of 0 or 1;

and a physiologically acceptable salt thereof, compounds represented by the general formula (III):

[Chemical Formula 7]

$$R^6-N$$
 $A^6$ 
 $N$ 
 $R^7$ 
 $COOH$ 
 $R^8$ 

wherein

20 R<sup>6</sup> represents a hydrogen atom or an amino protective group;

A<sup>6</sup> represents a lower alkylene or lower alkenylene radical;

R<sup>7</sup> represents a hydrogen atom; a lower alkanoyl radical which may be substituted with amino, lower alkanoylamino, ar(lower)alkoxycarbonylamino, aryl, aroylamino, carboxy, lower alkoxycarbonylamino, ar(lower)alkoxy, lower alkoxycarbonyl, lower alkanoyloxy, lower alkoxy or hydroxyl, among which aryl and 5 aroylamino may further be substituted with carboxy, lower alkoxy or lower alkoxycarbonyl; a lower alkoxycarbonyl radical which may be substituted with lower alkoxy, aryl or cyclo(lower)alkyl; a lower alkenyloxycarbonyl radical; a di(lower)alkylaminosulphonyl radical; a cycloalkanoyl radical which may be substituted with lower alkoxy; an 10 aroyl radical which may be substituted with (C3-C6) alkoxy, carbamoyl(lower)alkoxy, N-(lower)alkylcarbamoyl(lower)alkoxy, N,N-di(lower)alkylcarbamoyl(lower)alkoxy, lower alkoxycarbonyl, nitro, cyano, carboxy, carboxy(lower)alkoxy, ar(lower)alkoxy, lower alkoxycarbonyl(lower)alkoxy, cyclo(lower)alkoxy, lower 15 alkoxycarbonylamino, cyclo(lower)alkyl(lower)alkoxy, lower alkanoylamino or lower alkylcarbamoyl; an aryloxycarbonyl radical; a heterocyclylcarbonyl radical; an amino radical which may be substituted with an acyl radical selected from the group consisting of a protected carboxycarbonyl radical and a heterocyclyloxycarbonyl 20 radical;

R<sup>8</sup> represents a hydrogen atom or an aryl or aralkyl radical which may be substituted with one or more hydroxyl and/or lower alkoxy; a moiety represented by the formula:

[Chemical Formula 8]

**25** 

represents a divalent N-containing, 6 to 8-membered heterocyclic radical;

and a physiologically acceptable salt thereof, and compounds represented by the formula (IV):

[Chemical Formula 9]

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wherein R<sup>9</sup> represents a hydrogen atom or an amino protective group; and a physiologically acceptable salt thereof.

10 3. The contrast medium for thrombus according to claim 2, wherein the compound capable of binding to glycoprotein IIb/IIIa is a compound represented by the formula (III-1):

[Chemical Formula 10]

- or a physiologically acceptable salt thereof.
  - 4. The contrast medium for thrombus according to any one of claims 1 to 3, wherein the compound capable of binding to

glycoprotein IIb/IIIa is labeled with a positron emitting isotope.

- 5. The contrast medium for thrombus according to any one of claims 1 to 4, wherein the compound capable of binding to glycoprotein IIb/IIIa is labeled with <sup>11</sup>C.
- 5 6. A compound represented by the general formula (IV): [Chemical Formula 11]

$$R^9N$$
 $O$ 
 $COOH$ 
 $COOH$ 
 $COOH$ 

wherein R<sup>9</sup> represents a hydrogen atom or an amino protective group, and a physiologically acceptable salt thereof.

- 7. A method of detecting a thrombus which comprises the steps of administering the contrast medium for thrombus according to any one of claims 1 to 5 to a mammal and detecting a label localized to the thrombus.
- 8. The method according to claim 7, wherein the detection step is carried out by positron emission tomography.